



STATE OF MARYLAND

# DHMH

Maryland Department of Health and Mental Hygiene  
201 W. Preston Street, Baltimore, Maryland 21201

Martin O'Malley, Governor – Anthony G. Brown, Lt. Governor – John M. Colmers, Secretary

## Office of Preparedness & Response

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March 19, 2010

## Public Health & Emergency Preparedness Bulletin: # 2010:10 Reporting for the week ending 03/13/10 (MMWR Week #10)

### CURRENT HOMELAND SECURITY THREAT LEVELS

National: Yellow (ELEVATED) \*The threat level in the airline sector is Orange (HIGH)  
Maryland: Yellow (ELEVATED)

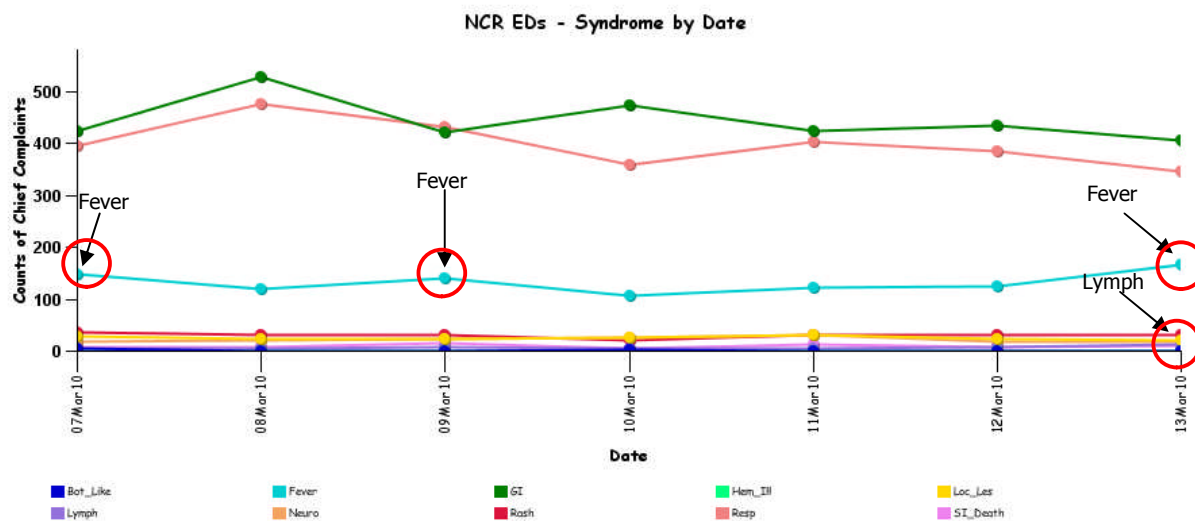
### SYNDROMIC SURVEILLANCE REPORTS

#### ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):

Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled.

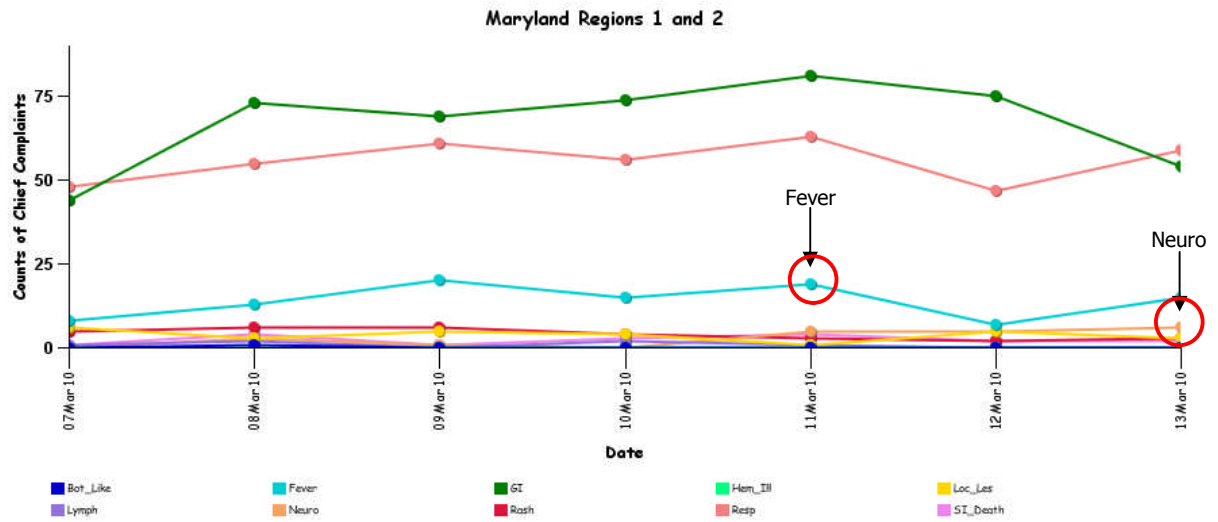
Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

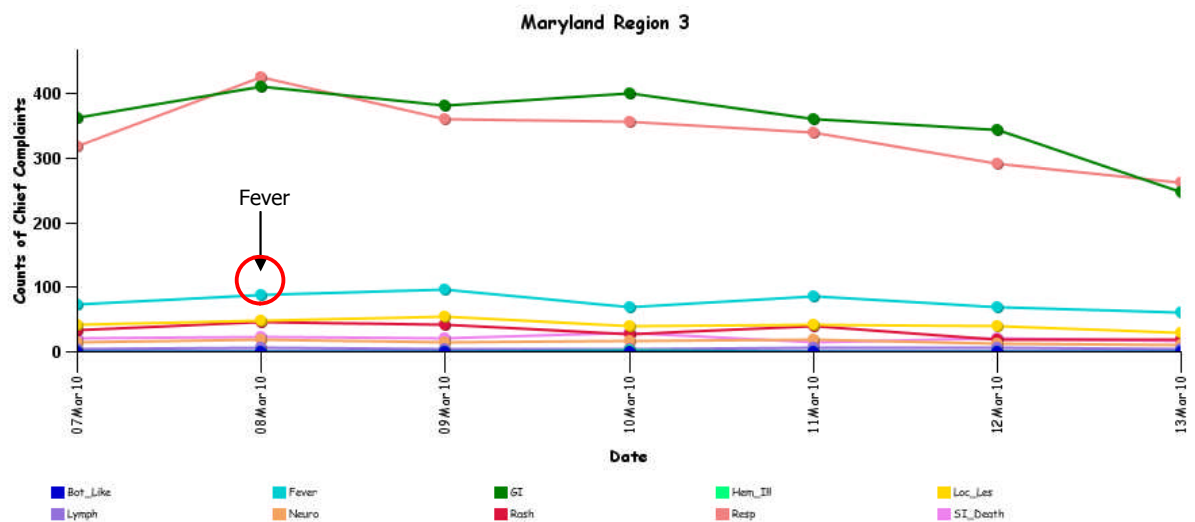


\* Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

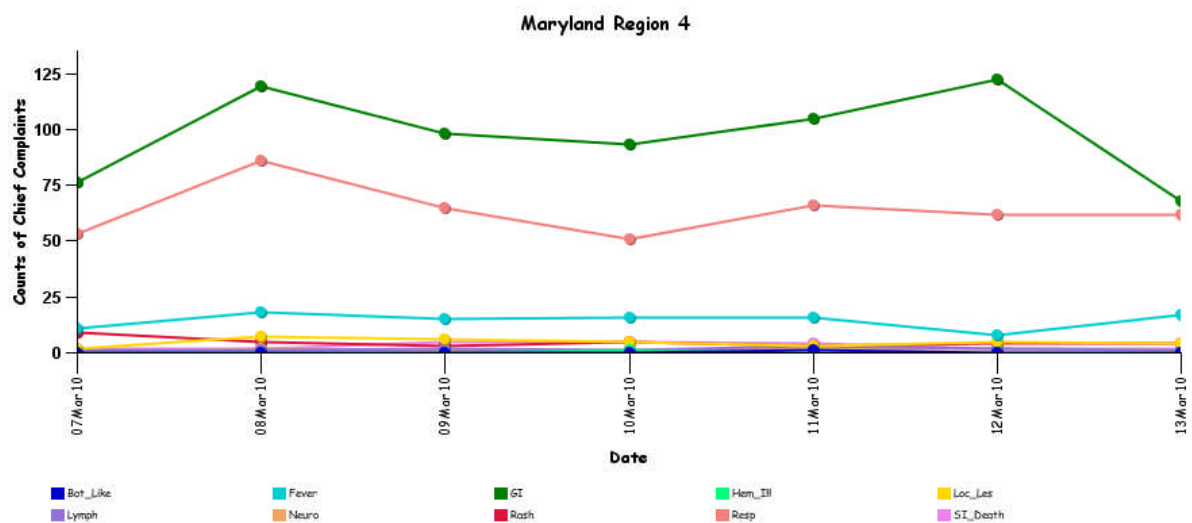
## MARYLAND ESSENCE:



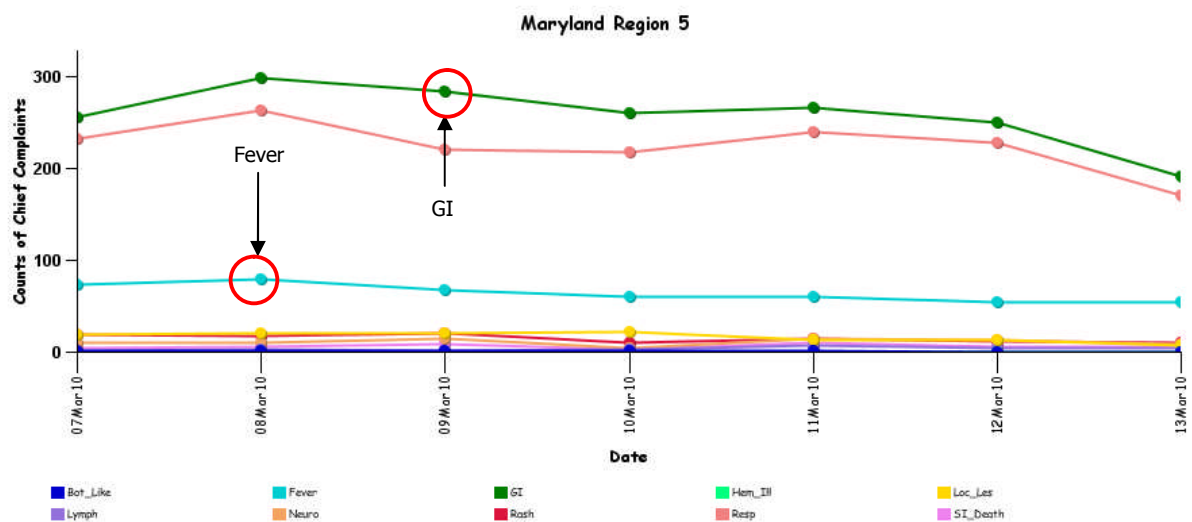
\* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



\* Region 3 includes EDs in Anne Arundel, Baltimore city, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE

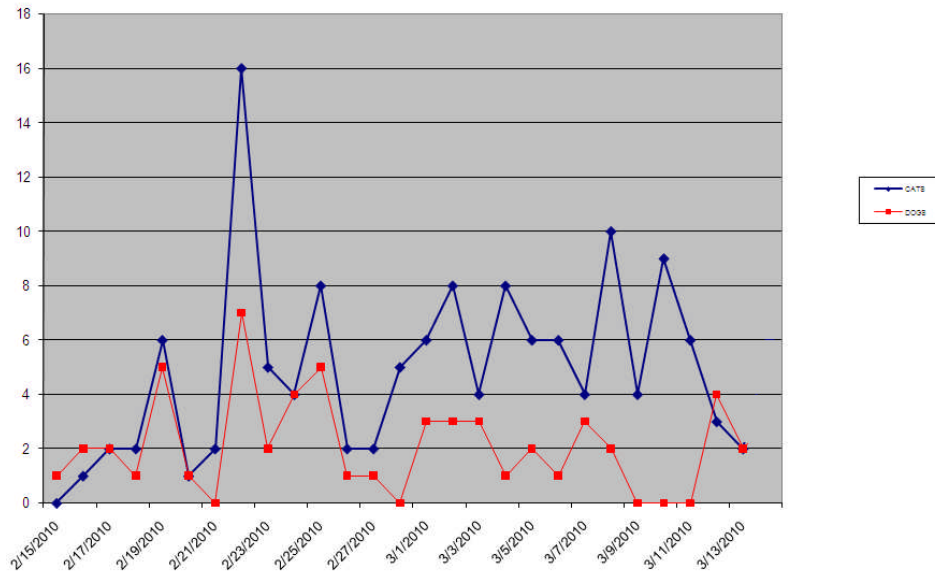


\* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



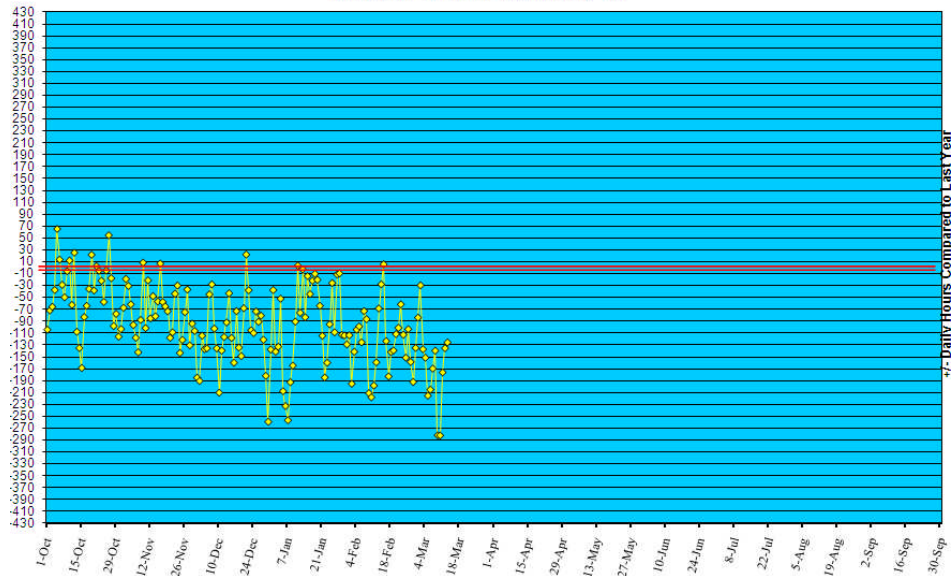
\* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

**BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT:** No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Graphical representation is provided for animal carcass surveillance 311 data.  
Dead Animal Pick-Up Calls to 311



#### REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

**YELLOW ALERT TIMES (ED DIVERSION):** The reporting period begins 10/01/09.  
**Statewide Yellow Alert Comparison**  
**Daily Historical Deviations**  
**October 1, '09 to March 13, '10**



## **REVIEW OF MORTALITY REPORTS**

**Office of the Chief Medical Examiner:** OCME reports no suspicious deaths related to an emerging public health threat for the week.

## **MARYLAND TOXIDROMIC SURVEILLANCE**

**Poison Control Surveillance Monthly Update:** Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in February 2010 did not identify any cases of possible public health threats.

## **REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS**

### **COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):**

<b>Meningitis:</b>	<b><u>Aseptic</u></b>	<b><u>Meningococcal</u></b>
New cases (March 07- March 13, 2010):	07	0
Prior week ((Feb 28- March 06, 2010):	05	0
Week#10, 2009 (March 08- March 14, 2009):	10	0

**11 outbreaks were reported to DHMH during MMWR Week 10 (March 7-13, 2010)**

### **8 Gastroenteritis outbreaks**

5 outbreaks of GASTROENTERITIS in Nursing Homes  
2 outbreaks of GASTROENTERITIS in Assisted Living Facilities  
1 outbreak of GASTROENTERITIS in a Hospital

### **2 Respiratory illness outbreaks**

1 outbreak of ILI in a Nursing Home  
1 outbreak of PNEUMONIA in a Nursing Home

### **1 Rash illness outbreak**

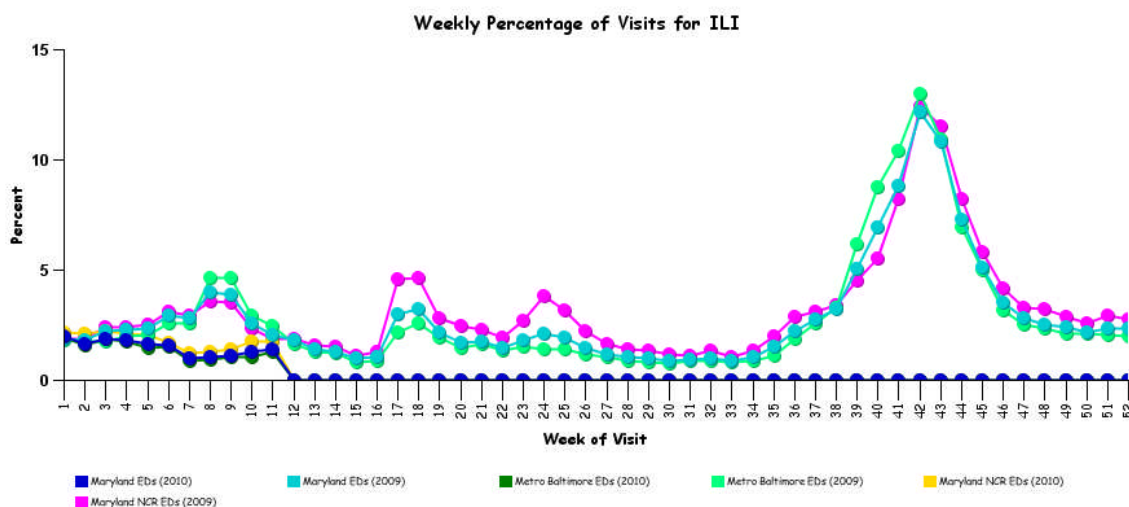
1 outbreak of SCABIES in an Assisted Living Facility

**MARYLAND INFLUENZA STATUS:** Influenza activity in Maryland for Week 10 is SPORADIC.

## **SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS**

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



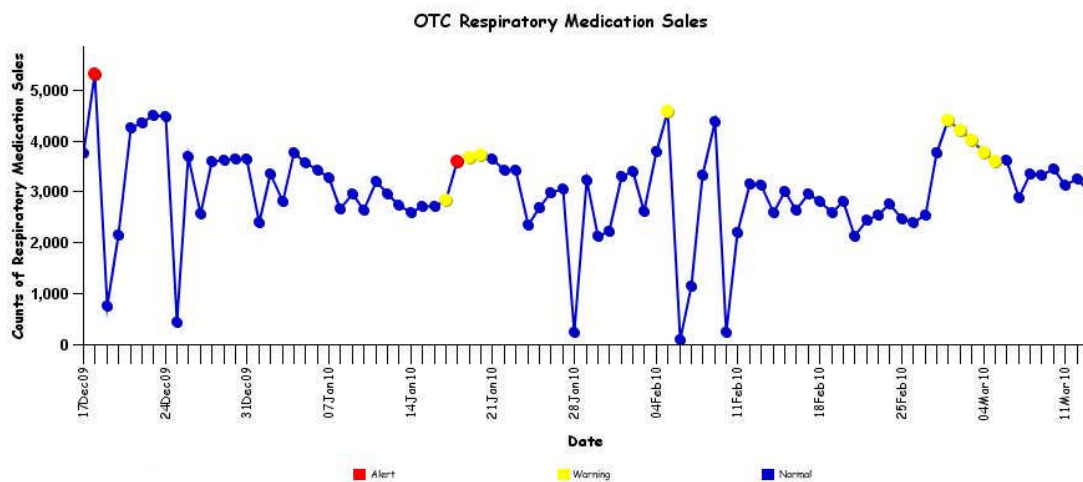
\*  
Includes 2009 and 2010 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



\*Includes 2010 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

### OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



## **PANDEMIC INFLUENZA UPDATE:**

**WHO Pandemic Influenza Phase:** Phase 6: Characterized by community level outbreaks in at least one other country in a different WHO region in addition to the criteria defined in Phase 5. Designation of this phase will indicate that a global pandemic is under way. Definition of Phase 5 is characterized by human-to-human spread of the virus into at least two countries in one WHO region. While most countries will not be affected at this stage, the declaration of Phase 5 is a strong signal that a pandemic is imminent and that the time to finalize the organization, communication, and implementation of the planned mitigation measures is short.

**US Pandemic Influenza Stage:** Stage 0: New domestic animal outbreak in at-risk country

**\*\*More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at:**  
[http://preparedness.dhmm.maryland.gov/Docs/PandemicInfluenza/PandemicInfluenzaResponseAnnex\(V7.2\).pdf](http://preparedness.dhmm.maryland.gov/Docs/PandemicInfluenza/PandemicInfluenzaResponseAnnex(V7.2).pdf)

## **AVIAN INFLUENZA-RELATED REPORTS:**

**WHO update:** As of March 12, 2010, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 488, of which 289 have been fatal. Thus, the case fatality rate for human H5N1 is about 59%.

**AVIAN INFLUENZA, HUMAN (VIET NAM):** 13 March 2010, A 25-year-old woman from Soc Son District, Ha Noi, tested positive for avian influenza virus type H5N1 or bird flu on Thursday [11 Mar 2010], according to the Preventive Medicine and Environment [Department] at the Ministry of Health. The patient, who is now in intensive care in Bach Mai General Hospital, caught the virus on 5 Mar 2010, allegedly from ill and dead poultry that were near her home.

**AVIAN INFLUENZA, HUMAN (EGYPT):** 04 March 2010, The Ministry of Health of Egypt has announced 2 new cases of human H5N1 avian influenza infection. The 1st case is a 20-year-old pregnant female from El Khanka district, Qaliobia Governorate. She was hospitalized on 5 Mar 2010 where she received oseltamivir treatment and died on 9 Mar 2010. The 2nd case is a 1 and a half-year-old male from Elhamool district, Kfr Elsheikh Governorate. He was hospitalized on 2 Mar 2010, where he received oseltamivir treatment. He is in a stable condition. Investigations into the source of infection indicated that the 2 cases had exposure to sick and dead poultry. The cases were confirmed by the Egyptian Central Public Health Laboratories, a National Influenza Center of the WHO Global Influenza Surveillance Network (GISN). The Egyptian authorities have also reported the death of a previously announced case; the 53-year-old male from Shobra Elkhima district, Qaliobia Governorate who developed symptoms on 27 Feb 2010. Of the 106 laboratory confirmed cases of avian influenza A(H5N1) reported in Egypt, 32 have been fatal.

## **H1N1 INFLUENZA (Swine Flu):**

**INFLUENZA PANDEMIC (H1N1), WHO UPDATE:** 13 March 2010, The most active areas of pandemic influenza transmission are currently in Southeast Asia, however, lower levels of pandemic virus circulation persist in other parts of Asia and in Eastern and South-eastern Europe. In West Africa, limited data suggests that pandemic influenza virus transmission may be increasing in region. Of note, seasonal influenza B viruses have been increasingly detected in Asia and appear to be spreading westward. In Sub-Saharan Africa, limited data suggests that on-going community transmission of pandemic influenza virus continues to increase in parts of West Africa, without clear evidence of a peak in activity. Increased detections of pandemic influenza virus have been observed among sentinel surveillance sites in several countries, including Senegal and Cote D'Ivoire, however, to date, data is limited regarding the spectrum of clinical severity of cases. Recent increases in influenza activity have also been reported in Rwanda. Much of eastern and southern Africa likely experienced an earlier peak in pandemic influenza activity during November 2009 and late summer 2009, respectively. In South and Southeast Asia, pandemic influenza virus circulation persist in most countries, however, overall transmission remains most active in Thailand, especially since mid January 2010. Approximately half of all provinces in Thailand reported that greater than 10 percent of all outpatients sought care for ILI [influenza-like illnesses], and approximately 25 percent of all patients with ILI at sentinel sites tested positive for influenza. The current increase in the number of cases in Thailand remains well below an earlier period of peak transmission during June through September 2009. In Bangladesh, an increasing trend in respiratory disease was reported, however, overall influenza activity remains low. In India, influenza virus transmission persist at lower levels in the western region of India, while activity in other regions has largely subsided.

In East Asia, pandemic influenza activity continues to decrease or remain low as levels of ILI return to seasonal baselines in Japan and in the Republic of Korea. In Mongolia, a recent sharp increase in ILI activity was associated predominantly with a resurgence of circulation of seasonal influenza B viruses. In China, pandemic influenza activity has declined since peaking during November 2009, however, overall influenza activity remains elevated, largely due to an increase in the circulation of seasonal influenza B viruses.

In North Africa and Western Asia, overall pandemic influenza activity remains low in most places, with the exception of Iraq and Afghanistan, both of which reported regional spread of influenza with an increasing trend in respiratory diseases activity. In Afghanistan, a moderate impact on the healthcare system was reported in association with increased respiratory diseases activity. Although overall influenza activity remains low in Iran, all recent influenza virus detection have been due to seasonal influenza B viruses.

In Europe, overall pandemic influenza transmission continued to decline as low levels of pandemic virus continue to circulate in parts of eastern and south-eastern Europe. The overall percentage of sentinel respiratory specimens testing positive for influenza remained low (6.8 percent) but slightly increased compared to the previous week. Pandemic H1N1 2009 virus continues to be the predominant circulating influenza virus in the European region with the exception of the Russian Federation and Sweden where influenza B was reported as co-dominant or dominant.

In the northern and the southern temperate zones of the Americas, overall pandemic influenza transmission remained low as influenza virus continued to circulate at low levels. In Central America, Nicaragua and Honduras, reported slight increases in respiratory diseases activity, possibly due to an increase in school outbreaks; however, it is unclear to what extent the increases are associated with circulation of pandemic influenza virus. In Brazil, an increasing trend of respiratory diseases with low overall intensity was reported in association with regional spread of influenza virus. In the temperate zone of the southern hemisphere, overall influenza activity remained low, with sporadic detections of pandemic and seasonal influenza viruses.

Although pandemic influenza virus continues to be the predominant circulating influenza virus worldwide, circulation of seasonal influenza B viruses continue to increase and spread across Asia, parts of Eastern Europe, and Eastern Africa, but most notably in China, Mongolia, Iran and the Russian Federation. The Global Influenza Surveillance Network (GISN) continues monitoring the global circulation of influenza viruses, including pandemic, seasonal and other influenza viruses infecting, or with the potential to infect, humans including seasonal influenza.

#### **Resources:**

<http://www.cdc.gov/h1n1flu/>

<http://www.dhmm.maryland.gov/swineflu/>

### **NATIONAL DISEASE REPORTS**

**SALMONELLOSIS, SALAMI, BLACK AND RED PEPPER (USA):** 13 Mar 2010, The Centers for Disease Control and Prevention (CDC) is collaborating with public health officials in many states, the Department of Agriculture's Food Safety and Inspection Service (FSIS), the Food and Drug Administration (FDA), and the State of Rhode Island to investigate a multistate outbreak of *Salmonella* [enterica\_] serotype Montevideo infections. Investigators are using DNA analysis of salmonella bacteria obtained through diagnostic testing to identify cases of illness that may be part of this outbreak. As of 9:00 pm EST on 9 Mar 2010, a total of 249 individuals infected with the outbreak strain of *Salmonella* Montevideo, which displays either of 2 closely related pulsed-field gel electrophoresis (PFGE) patterns, have been reported from 44 states and District of Columbia since 1 Jul 2009. The number of ill persons identified in each state with this strain is as follows: AK (1), AL (2), AZ (7), CA (31), CO (5), CT (5), DC (1), DE (3), FL (3), GA (3), IA (1), ID (4), IL (22), IN (4), KS (5), LA (1), MA (14), MD (1), ME (1), MI (4), MN (6), MO (2), MS (1), NC (11), ND (1), NE (3), NH (2), NJ (9), NM (2), NY (18), OH (9), OK (1), OR (9), PA (7), RI (2), SC (1), SD (3), TN (5), TX (7), UT (9), VA (1), WA (18), WI (1), WV (1), and WY (2). Because the main *S.* Montevideo outbreak PFGE pattern is commonly occurring in the USA, public health investigators may determine that some of the illnesses are not part of this outbreak. *S.* Senftenberg, a different serotype, has been found in food samples from retail and a patient household during this outbreak investigation. PulseNet identified 8 persons who had illness caused by serotype Senftenberg with matching PFGE patterns between 1 Jul 2009 and today [11 Mar 2010]. Public health officials have interviewed 6 of the 8 ill persons with this strain of serotype Senftenberg and determined that 2 purchased a recalled salami product during the week before their illness began. These 8 cases are not included in the overall case count reported above. Among the persons with reported dates available, illnesses began between 4 Jul 2009 and 18 Feb 2010. Infected individuals range in age from less than 1 year old to 93 years old and the median age is 37 years. 53 percent of patients are male. Among the 190 patients with available information, 49 (26 percent) were hospitalized. No deaths have been reported. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) \*Non-suspect case

### **INTERNATIONAL DISEASE REPORTS**

**ANTHRAX, HUMAN (UK):** 12 March 2010, Another 2 heroin addicts from Dumfries are being treated in hospital for anthrax. A man and woman, both in their 30s, are the latest victims of an outbreak that has so far killed 10 drug users in Scotland. The man was admitted to Dumfries and Galloway Royal Infirmary on 28 Feb 2010 and the woman admitted on 5 Mar 2010 [These are the D&G cases 2 and 3.]. The region's 1st anthrax victim, a 44-year-old Dumfries man, has been receiving treatment in hospital for almost a month. Hugh Robertson, of the region's Integrated Drugs Service, said similarities to the 26 [sic, 23 outside D&G] other confirmed cases in Scotland suggest that the heroin, or a contaminated cutting agent, is the likely source. He said: "The 44-year-old male victim and the 31-year-old female victim are known to the Integrated Drugs Service. At some point in the past they have been in treatment for their drug use." Mr Robertson says it may claim more victims. "Obviously I hope it does not affect anybody else from Dumfries and Galloway or the rest of the country, but you never know. This is the 3rd case of anthrax seen in an injecting drug user in Dumfries since similar cases were 1st seen in Scotland in December 2009, and it wouldn't surprise me if more cases were identified." Several heroin users have already contacted the drugs service, which helps addicts kick the habit. "We usually deal with around 3-4 referrals a week. However, we are now experiencing around 10 a week, which has been brought on by the latest anthrax scare," Mr Robertson said. He is urging all heroin users to be extremely alert to the risks and seek urgent medical advice if they experience signs of infection such as redness or swelling at or near an injection site. "Other symptoms include a high temperature, chills or a severe headache," he warned. "Early antibiotic treatment can be lifesaving. This is a very serious infection for drug users, and prompt treatment is crucial." Mr Robertson said it was extremely rare for anthrax to be spread from person to

person and urged heroin users to play it safe by not injecting the drug. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) \*Non-suspect case

**CHIKUNGUNYA (INDONESIA):** 10 March 2010, A 66-year-old drink vendor says she just recovered from a "kind of" rheumatic pain in her joints. She suffered high fevers at night and drastic chills in the morning, forcing her to stay in bed for 2 weeks. "I had never heard of chikungunya until people said that's what I was suffering from. It's terrible," she told the Jakarta Globe in front of Bekasi Hospital in West Java. She is now fully recuperated, though the cheap, over-the-counter flu drugs she used probably had little to do with her recovery. Bekasi, located on the outskirts of Jakarta, has a long history of chikungunya [virus infections], with the last serious outbreak taking place in 2002. "It's a typical suburban disease," said Rita Kusriastuti, the Health Ministry's director of Vector-Borne Diseases. "The mosquitoes that transmit the virus like plants and farm areas, [as well as] puddles." [*Aedes aegypti*] breeds in water catchments in and around houses, in both rural and urban areas. She said that in the past few months, chikungunya [virus] had spread to many parts of the country, with Lampung and Bangka-Belitung provinces reporting the highest number of cases -- primarily in suburban and semi-rural districts. Cases also have been reported in parts of Java and Kalimantan. According to state-run Antara news agency, the ministry reported that almost 20 000 people were infected with chikungunya from January to February [2010] in Lampung alone. That is more than the total number of dengue fever cases in the province in a typical year. The ministry, Rita said, has been working to curb the transmission of the disease through public awareness campaigns. "We ask people to keep their surroundings and water supply clean to prevent their backyards from becoming breeding grounds for mosquitoes," she said. She said fumigation campaigns also had been introduced to kill mosquitoes in areas suffering particularly bad outbreaks. However, Rita said the rise in the number of cases over the 1st 3 months of the year [2010] pointed to the possibility of insecticide resistance among adult mosquitoes as a result of the frequent fumigation. "We haven't scientifically looked into the possibility. But, overall, the situation is still under control," she said. The name "chikungunya" is derived from a Swahili word that means "that which bends up," apparently a reference to the stooped posture that develops due to the arthritis-like symptoms of the disease. Upik Kesumawati Hadi, an entomologist from the Bogor Institute of Agriculture, said that clinically, chikungunya was not considered a serious threat because it was a self-limiting disease that would resolve itself. She added that the length of the recovery period for chikungunya ranged from one week to one month, depending on an individual's immune system. "It's a problem because sufferers cannot go about their normal activities, which means not being able to work," she said. "The only effective preventive measure for the spread of chikungunya [virus transmission] is to break the vector's cycle," she said. Upik said that contrary to popular belief, *Aedes aegypti* mosquitoes could bite humans at anytime of the day, although they preferred dusk and dawn. (Emerging Infectious Disease is listed in Category C on the CDC list of Critical Biological Agents) \*Non-suspect case

**CHIKUNGUNYA (MYANMAR):** 08 March 2010, A mosquito-borne virus with symptoms similar to dengue fever is spreading rapidly in Burma [Myanmar], according to doctors who asserted, however, that it has a low fatality rate. The chikungunya virus only became commonplace in Burma [Myanmar] in mid-2009, although cases were reported as far back as 1975. It comes as doctors warn of a new wave of the A(H1N1) and A(H5N1) viruses in Burma [Myanmar] that have struck more than 60 people in the past fortnight. "Chikungunya [disease] begins like a normal flu with symptoms such as aches and pains, especially in the joints," [said] a specialist doctor in Rangoon [Yangon]. "The joint pain can be so severe that elderly patients may be unable to walk." Although the flu has strong symptoms, it has a low fatality rate, particularly if the patient receives proper treatment at inception, the doctor said. "Personal hygiene is important for flu diseases. Wash hands properly and avoid getting bitten by mosquitoes. Chikungunya [virus] is mainly contracted [transmitted] by mosquitoes," he said. (Emerging Infectious Disease is listed in Category C on the CDC list of Critical Biological Agents) \*Non-suspect case

#### **OTHER RESOURCES AND ARTICLES OF INTEREST**

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://preparedness.dhmh.maryland.gov/>

Maryland's Resident Influenza Tracking System: [www.tinyurl.com/flu-enroll](http://www.tinyurl.com/flu-enroll)

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**NOTE:** This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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